

TH/bs 030084

24 July 2003

Patent claims

1. A gas lance made of a fireproof material, having an entry surface and an exit surface, having channels having a slit-shaped cross-section that comprise an entry slit and an exit slit, the gas lance being fashioned as a truncated cone at whose ends the entry surface and the exit surface are situated, the entry slits being situated in the entry surface and the exit slits being situated in the exit surface, the channels running between the entry surface and the exit surface, and the slit-shaped cross-sections of the channels pointing essentially radially outward from the axis of the truncated cone,

characterized in that

the projection of the exit slit (7) of a channel (5) onto the entry surface (6) is offset in relation to the entry slit (7) of the channel.

2. The gas lance as recited in Claim 1,

characterized in that

the projections of the exit slits (7) onto the entry surface (2) are offset relative to the axis (4) of the truncated cone with a uniform direction of rotation to the entry slits (6).

3. Gas lance as recited in one of Claims 1 or 2,

characterized in that

the projections of the exit slits (7) onto the entry surface (2) are offset parallel to the entry slits (6).

4. The gas lance as recited in one of Claims 1 to 3,

characterized in that

the exit slits (7) extend radially outward in a star-shaped pattern from the axis (4) of the truncated cone.

5. The gas lance as recited in one of Claims 1 to 4,
characterized in that
the exit slits (7) have different lengths.

6. The gas lance as recited in one of Claims 1 to 5,
characterized in that
the slit-shaped cross-section of the channels (5) has a constant length along its run.

7. The gas lance as recited in one of Claims 1 to 5,
characterized in that
the length of the slit-shaped cross-section of the channels (5) decreases from the entry slit (6)
to the exit slit (7).

8. The gas lance as recited in one of Claims 1 to 7,
characterized in that
the width of the slit-shaped cross-section of the channels (5), as well as of the entry and exit
slits (6,7), is between 0.1 to 5 mm and 0.5 mm.